

Two New Cerambycid Beetles from Lutao  
Island off Southeast Taiwan

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台湾緑島産カミキリの2新種

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台湾の南東洋上約70kmに位置する緑島で得られたカミキリムシ科フトカミキリ亜科甲虫の2新種, *Mesosa (Mesosa) kumei* Takakuwa, sp. nov. (ゴマフカミキリ族 tribe Mesosini) と *Peblephaeus lutaoensis* Takakuwa, sp. nov. (ヒゲナガカミキリ族 tribe Agniini) を記載した。

前種は台湾や中国などに分布するチャゴマフカミキリ *Mesosa (Mesosa) perplexa* Pascoe に近縁で、明らかにその系統群に含まれるが、体が頑強で触角は太短く、体毛の色彩や斑紋を異にするなどの顕著な外部形態差が認められるうに、雄交尾器の中葉片先端の形状も大きく異なるので、それとは種を違えるものと判断される。

後種は上翅に非常に大きな顆粒状点刻を持つことで、本属の他の種とは一見して区別される。色彩的には与那国島のノブオフトカミキリ *Peblephaeus nobuoi* (Breuning et Ohbayashi) に似るが、体型や上翅端、雄交尾器の特徴から、それとは異質の群であることは明らかである。むしろ雄交尾器の特徴などからは、色彩のまったく異なるウスイロフトカミキリ台湾亜種 *P. decoloratus decoloratus* (Schwarzer) に近いが、それとは前胸背に通常の点刻をまったく欠くこと、上翅端の内・外角突起ともに短いこと、雄交尾器の中葉片はより細く、その背片先端は広く丸まることなどで異なっており、独立種として扱うべきと考えられる。

**Abstract** Two new cerambycids of the subfamily Lamiinae, *Mesosa (Mesosa) kumei* sp. nov. and *Peblephaeus lutaoensis* sp. nov., are described from Lutao Is. off Southeast Taiwan. The former is closely related to *M. (M.) perplexa* Pascoe, while the latter is somewhat peculiar in the genus by having distinct umbilicate granules on elytra.

Through the courtesy of Messrs. Kunio Kume and Koyo Akiyama, I was able to examine two interesting cerambycid species of the subfamily Lamiinae obtained in Lutao Is. off about 70km distant to the east-southeast of Taitung of Southeast Taiwan. Of these, one is a beautiful species decorated with whitish broad fasciae of the meso-

sine genus *Mesosa* Latreille, another is a caesious colored cerambycid of the agniine genus *Pebblephaeus* Kusama et Takakuwa. The former is closely related to *M. (M.) perplexa* Pascoe and the latter resembles *P. nobuoi* (Breuning et Ohbayashi) in the coloration, but it became clear that the both are surely good species by a careful examination. Therefore, I will describe them as new species in the present paper.

Before going further, I wish to express my sincere gratitude to Dr. Shun-Ichi Uéno of the National Science Museum (Nat. Hist.), Tokyo, for giving me advice on technical terms. Thanks are also due to Messrs. Kunio Kume of Tokyo, Koyo Akiyama and Hideo Akiyama of Yokohama for their kindness supplying with materials.

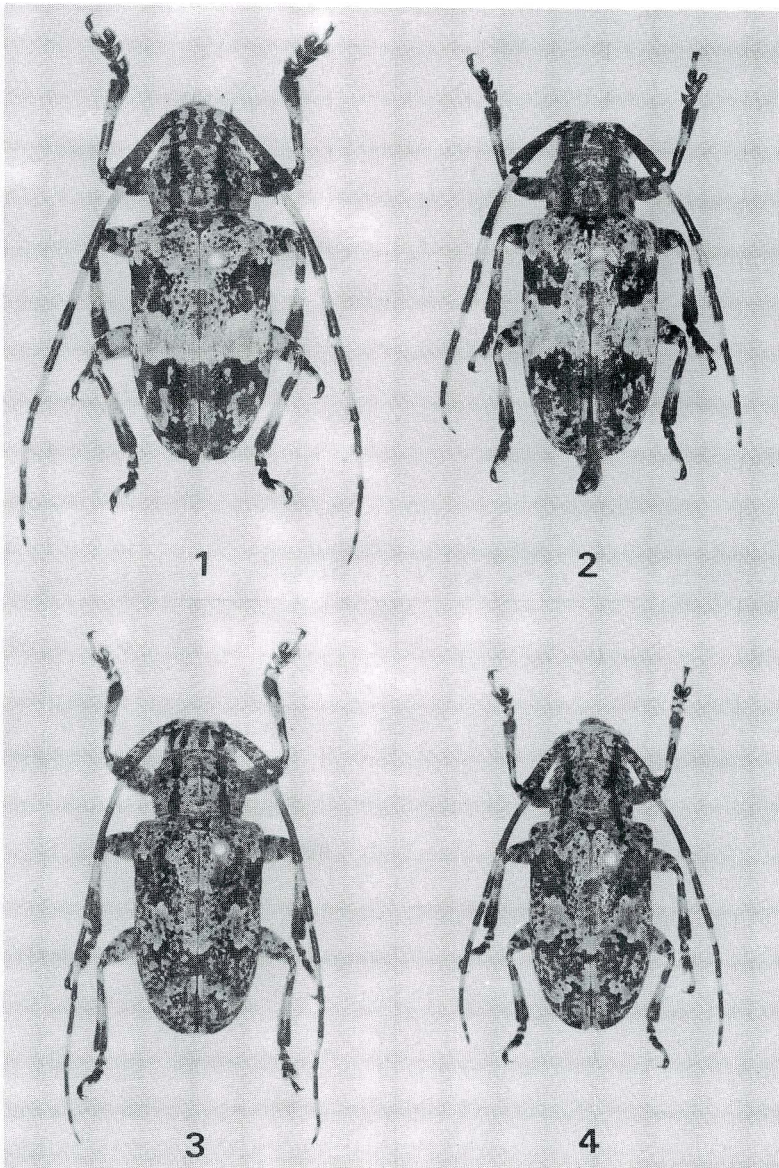
*Mesosa (Mesosa) kumei* sp. nov.

(Figs. 1, 2, 5)

Thick, robust, entirely black except for reddish brown apical parts of claws and chocolate brown to blackish brown body beneath.

Body densely clothed with pale whitish or yellow to pinkish yellow recumbent elongate scales and fuscum to dark fuscum minute scales or pubescence on all over, of which the latter is forming blackish maculations; head generally clothed with yellowish scales except for two pairs of maculations on vertex, a median pair being longitudinal, running from frons to occiput, a lateral pair being interrupted by eyes, broadly connected with a median pair at posterior areas of vertex usually; antennae beneath with semi-erect long hairs, 1st segments with few yellowish patches besides dark fuscum pubescence, 2nd with dark fuscum minute pubescence only, 3rd to last more or less annulated with whitish scales as follows besides dark fuscum minute pubescence: 3-4 and 10-11th each at about basal half, 5th at basal 1/5-1/6, 6 and 8th at about basal 2/3, and 7 and 9th scarcely at each base; pronotum clothed with yellowish pubescence or scales on almost parts, often with few whitish scales sporadically, extremely sparsely with very long erect to semirecumbent hairs, scattered with small blackish patches, and with three longitudinal blackish fasciae on disc which are variable in shape and are usually connected with each other near the middles; scutellum with blackish pubescence except for median and apical yellowish scales; elytra very sparsely with semi-recumbent to erect setae, without long hairs except for apical area, decorated with vivid fasciae as follows: basal yellowish fascia consist of yellowish and whitish scales, with small blackish patches, the posterior margin being strongly zigzag, ante-median blackish fascia somewhat zigzag, consist of fuscum scales, with yellowish patches especially near the middle, median whitish fascia clear, consist of yellowish scales on median zone and whitish ones around, with small blackish patches especially on sides, the anterior and posterior margins being waved, post-median blackish fascia consist of fuscum scales, with few yellowish patches, ante-apical whitish to yellowish fascia somewhat indistinct, consist of yellowish and whitish scales, the anterior and posterior margins being strongly waved, apical blackish fascia vague, with minute to large yellowish marks, often connected with post-median fascia through ante-apical one by





Figs. 1-4. *Mesosa* (*Mesosa*) spp. —1. *M. (M.) kumei* sp. nov., ♂ (holotype), 2. same, ♀ (paratype), 3. *M. (M.) perplexa* Pascoe, ♂, 4. same, ♀.

one or two pairs of vague stripes; body beneath very similar to that of *Mesosa* (*Mesosa*) *perplexa* in the status of scales or pubescence; femora mottled by whitish to yellowish scales and dark fuscum pubescence, and sparsely with recumbent to semirecumbent long setae; each tibia annulated with yellowish scales just behind base and same colored scales and/or long setae near middle, the remainders clothed with dark fuscum minute pubescence anteriorly and same colored long setae posteriorly; tarsi clothed with blackish setae upwards, with 1st segments of the meta- and mesotarsi decorated with whitish scales on basal parts and 2nd ones of the same faintly so

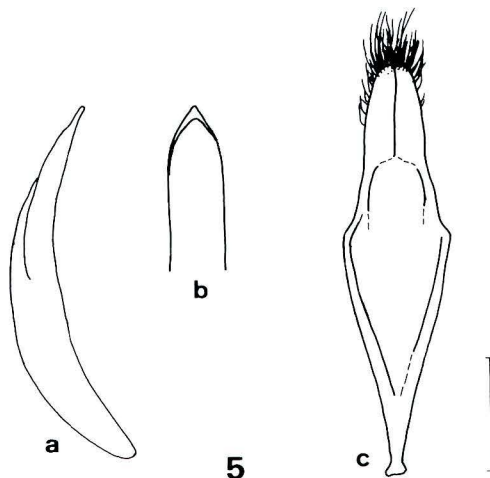


Fig. 5. Male genitalia of *Mesosa (Mesosa) kumei* sp. nov. —a. median lobe in lateral view; b. apical part of the same in dorsal view; c. tegmen in ventral view. (Scale: 1mm.)

usually.

Head quadrate and parallel-sided in frontal view, moderately punctate, deeply excavate along median line from middle part of frons to vertex; lower eye lobe about as high as (male) or apparently shorter than (female) gena below it. Antenna 11-segmented, exceeding elytral apex near base of 9th segment in male, scarcely not reaching elytral apex in female, thicker than in *M. (M.) perplexa*, gradually attenuated apically, relative lengths of segments of the holotype as follows: 5.5 : 1 : 7.2 : 4.9 : 3.4 : 3.2 : 2.5 : 2.7 : 2.1 : 2.1 : 1.7; terminal segment almost straight, nearly parallel-sided, not appendiculate, the tip bluntly rounded. Pronotum transverse, about 1.37 times as wide as long, lustreless, sparsely, coarsely, irregularly punctate, with base about 1.19 times as wide as apex; disc not even, with a pair of circular callosities at middle; side rather rounded (male) or not so rounded (female) in dorsal view, with a distinct process before apex. Scutellum quadrate to trapezoidal with apical corners rounded. Elytra about 1.72 times (male) or 1.8 times (female) as long as wide, rather sparsely punctate, the punctations becoming smaller to apex; sides narrowed towards basal 1/4, then very faintly broadened just behind middles, somewhat attenuated with curving near apices which are widely rounded; disc not smooth in basal area, somewhat rapidly inclined with slight curving in about apical half, with two pairs of distinct callosities at base and behind it, of which the latter is large and inwardly oblique posteriorly. Mesosternal intercoxal process rather small, nearly rectangular anteriorly, with anterior margin widely rounded in ventral view. Abdominal sternite 5 transversely trapezoidal, with apex straightly truncate, about 0.37 times as wide as visible basal margin, and with longitudinal median groove in female. Legs stouter than in *M. (M.) perplexa*.

Male genitalia comparatively stout. Median lobe shorter than tegmen (1 : 1.12), mod-



erately curving ventrad; apical part of ventral plate straightly convergent apicad, with the extremity very narrowly rounded; dorsal plate a little shorter than the ventral, with apex somewhat narrowly rounded. Tegmen slightly bent ventrad; parameres fully thick, gradually attenuate apicad with curving sides, with apex narrowly rounded, bearing minute erect hairs ventrad and long setae dorsad and laterad, of which the latter is becoming sparser towards the bases.

Body length: ♂ 16–19.5mm, ♀ 16mm; width: ♂ 6.3–8.0mm, ♀ 6.5mm.

*Type series.* Holotype, ♂, Lutao (Huoshatao) Is., Taiwan, 16–20. VI. 1989. Paratypes: 5♂♂1♀, same data as the holotype.

*Types depository.* The holotype will be preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo, and a paratype so in the collection of Kanagawa Prefectural Museum, Yokohama. The other paratypes are in Mr. H. Akiyama's or author's collection.

*Distribution.* Lutao Is. of Taiwan.

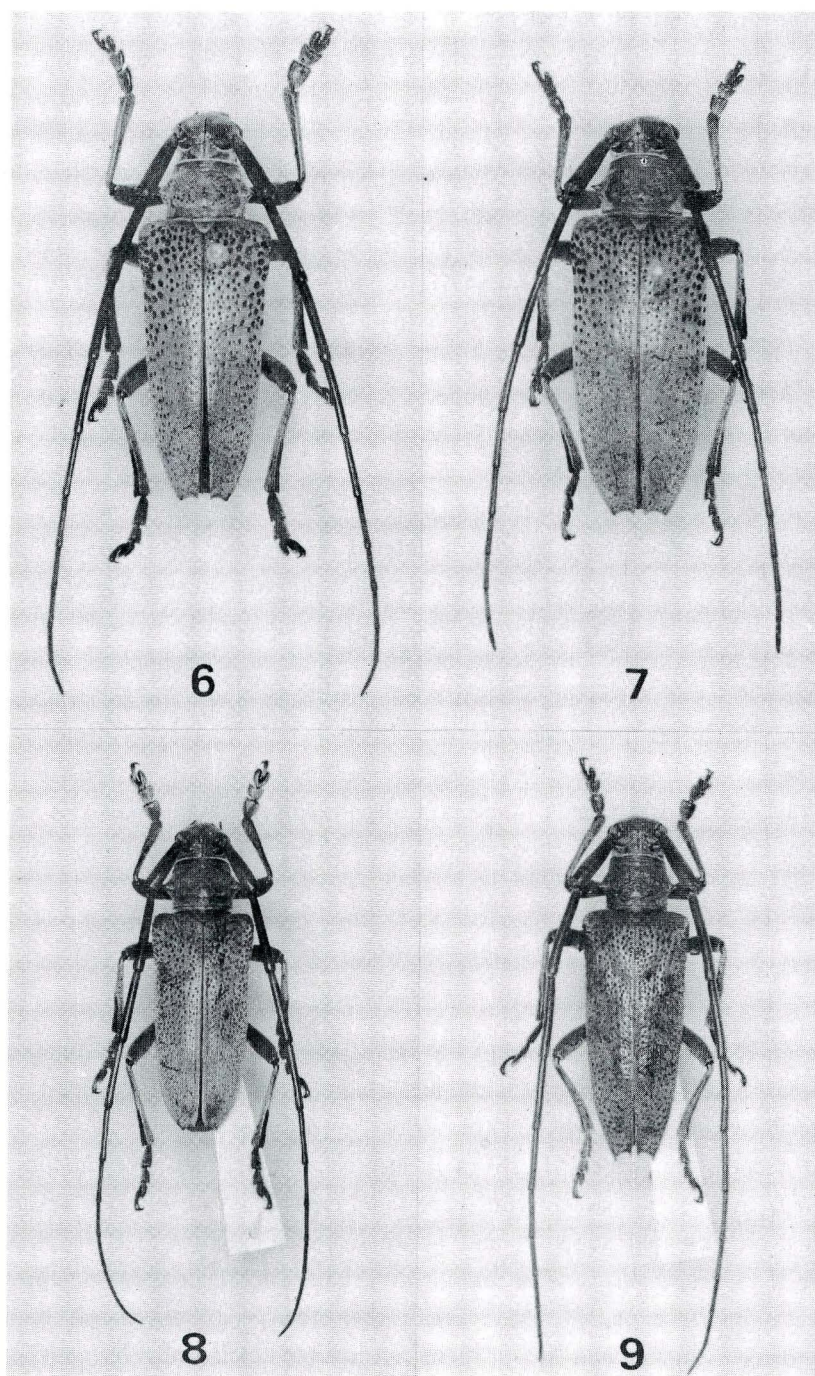
The beautiful new species is closely related to *Mesosa* (*Mesosa*) *perplexa* Pascoe distributed in Taiwan, China and Japan (naturalized), but surely differs from that species in the following characteristics: 1) body apparently stouter, 2) body clothed with yellow to pinkish yellow scales instead of pink to reddish pink ones in *perplexa*, 3) antenna thicker, exceeding elytral apex near base of 9th segment in male (exceeding it by 7th to 8th in *perplexa*), not reaching it in female (a little exceeding it in *perplexa*), 4) elytral fasciae extremely vivid, 5) legs stout, protarsi without whitish scales (1st and 2nd segments of protarsi decorated with whitish scales in *perplexa*), 6) dorsal plate of median lobe with apex widely rounded (apex bluntly pointed in *perplexa*), and so on.

*Pebblephaeus lutaoensis* sp. nov.

(Figs. 6, 7, 10)

Body stout, entirely black except for reddish brown clypeus and castaneous to dark castaneous 3–11th segments of antennae, immaculata, densely clothed with whitish caesious to whitish creamcolored thin scales on all over.

Head deeper than wide (17:15), a little broader than apex of pronotum, impunctate in almost parts, very sparsely with very long, erect hairs at anterior margin and sides of frons, on antennal supports and between upper eye lobes; frons slightly convex, broader than deep; vertex with umbilicate granules at inner areas of upper eye lobes; antennal supports strongly raised; eyes large, lower eye lobes deeper than wide, distinctly deeper than genae below them. Antennae thick, fully inflated in male, 1.47–1.58 times as long as body in male, about 1.33 times in female; relative lengths of segments of the holotype as follows: 9.9:1:12.3:11.3:10.5:8.7:7.1:5.8:5.3:4.8:6.0; 1st segments densely clothed with small scales and sparsely with erect to semirecumbent blackish setae, widely and completely cicatricized at apices; 3rd to terminal ones densely clothed with pale minute pubescence, very sparsely with long, suberect



Figs. 6-9. *Pebblephaeus* spp. —6. *P. lutaoensis* sp. nov., ♂ (holotype), 7. same, ♀ (paratype), 8. *P. nobuoi* (Breuning et Ohbayashi), ♂, 9. *P. decoloratus decoloratus* (Schwarzer), ♂.



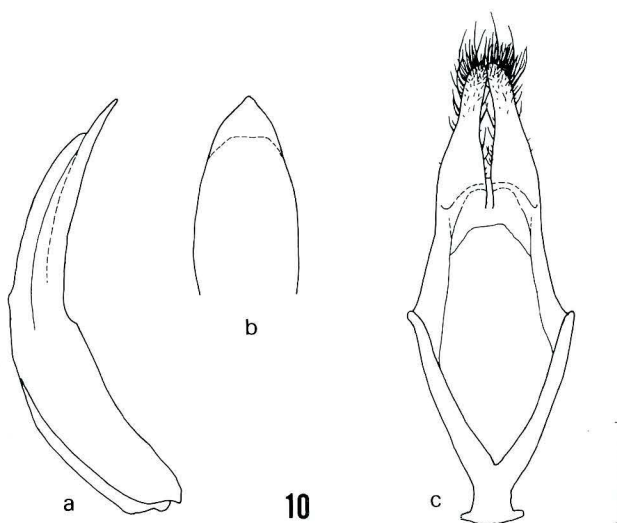


Fig. 10. Male genitalia of *Peblephaeus lutaoensis* sp. nov. —a, median lobe in lateral view; b, apical part of the same in ventral view; c, tegmen in ventral view. (Scale: 1mm.)

hairs below; 3-4th deeper in color than the followings. Pronotum transverse, 1.42-1.58 times as broad as long, narrowly grooved behind apex and broadly so before base, sparsely covered with umbilicate granules, each of which bears a long erect hair; lateral tubercles large, with a pair of spines not acute; disc rather even, without distinct swellings. Scutellum triangular with apex rounded. Elytra comparatively broad, 2.15-2.22 times as long as basal width, scarcely visible by bearing of dense scales, rather densely, coarsely covered with umbilicate granules which are more distinct at sides and become smaller and duller posteriorly, each umbilication usually with a suberect to semirecumbent blackish seta; sides gradually attenuate to basal 3/4, then somewhat abruptly so apicad with slight curving in male, abruptly constricted behind humeri, nearly parallel from about basal 2/7 before middles, then gradually attenuate apicad in female; apices emarginately, somewhat obliquely truncate, with inner angles slightly projecting posteriorly but more apparently so than in outer ones. Mesosternal intercoxal process underdeveloped, obliquely sloping anteriorly. Abdominal 5th segment with apical margin weakly sinuate in male, nearly straight in female. Legs nearly equal in length; femora weakly clavate; anterior tibiae scarcely bent; median tibiae very densely decorated with golden yellow suberect hairs at apical halves above and below.

Male genitalia large and stout. Median lobe comparatively thick, moderately curved, 4.0mm in length and 1.0mm in width in the holotype; ventral plate abruptly and almost straightly convergent near apex, with the tip narrowly rounded; dorsal plate considerably shorter than ventral one, with apex somewhat widely truncate. Tegmen moderately bent at middle, 4.6mm in length and 1.6mm in width; parameres abruptly attenuate behind middles apicad, then nearly parallel-sided just before apices which

are narrowly rounded, with erect hairs on ventral surface and long setae especially on sides, both of which are becoming sparser towards the bases.

Body length: ♂ 17–25mm, ♀ 21.5–27mm; width: ♂ 6.0–8.5mm, ♀ 7.2–9.6mm.

*Type series.* Holotype, ♂, Lutao (Huoshatiao) Is., Taiwan, 16–20. VI. 1989. Paratypes: 12♂♂11♀♀, same data as the holotype.

*Types depository.* The holotype and a paratype will be deposited in the National Science Museum (Nat. Hist.), Tokyo, and two paratypes so in Kanagawa Prefectural Museum, Yokohama. The remainders are in Mr. H. Akiyama's or author's collection.

*Distribution.* Lutao Is. of Taiwan.

The present new species is easily distinguished from all the known species of the genus by the large umbilication on elytra. However, in the coloration, it is somewhat allied to *P. nobuoi* (Breuning et Ohbayashi) from Yonaguni Is. of the S. Ryukyus, but apparently differs from the latter in having following three important characters besides mentioned above: 1) elytral sides nearly straightly attenuate to basal 3/4 in male, 2) inner angles of elytral apices projecting posteriad (entirely without projections in the latter), 3) ventral plate of median lobe with apex narrowly rounded (very broadly rounded in the latter). Also, it is rather similar to *P. decoloratus decoloratus* (Schwarzer) from Taiwan in the genitalic features, but is different from the latter in the nexts besides mentioned first: coloration (in the latter: body brownish, clothed with dark yellowish scales), status of pronotal punctures (same: pronotal disc with rather dense punctures besides umbilications), shape of elytra (same: elytra slenderer, with distinct inner and outer projections of apices), genitalic features (same: median lobe thin, with dorsal plate longer, the apex more narrowly truncate), etc.

### References

- Kusama, K. & M. Takakuwa, 1984. Lamiinae (part.). In Jpn. Soc. Coleopterol. (ed.), *The Longicorn-Beetles of Japan in Color*, pp. 352–544. Kodansha, Tokyo. (In Japanese.)  
Yu, Q. J. & H. Nara, 1988. The Cerambycidae of Taiwan. 111pp. Musheng Museum for Insect, Taipei. (In Chinese.)